INDEX

Acrivos, A. *See* Leighton & Acrivos

Amberg, G. & Greenspan, H. P. Boundary layers in a sectioned centrifuge, 77–97

Ben-Dor, G. A reconsideration of the three-shock theory for a pseudo-steady Mach reflection, 467–484

Benjamin, T. B. Hamiltonian theory for motions of bubbles in an infinite liquid, 349–379

Bernardin, D. *See* Sero-Guillaume & Bernardin

Blake, J. R., Taib, B. B. & Doherty, G. Transient cavities near boundaries. Part 2. Free surface, 197–212

Boisson, H. C. *See* Kourta, Boisson, Chassaing & Ha Minh

Cerra, A. W. *See* Walker, Smith, Cerra & Doligalski

Chassaing, P. *See* Kourta, Boisson, Chassaing & Ha Minh

Colombini, M., Seminara, G. & Tubino, M. Finite-amplitude alternate bars, 213–232

Cowley, S. J. *See* Goldstein, Leib & Cowley

Doherty, G. *See* Blake, Taib & Doherty

Doligalski, T. L. *See* Walker, Smith, Cerra & Doligalski

Goldstein, M. E. & Hultgren, L. S. A note on the generation of Tollmien–Schlichting waves by sudden surface-curvature change, 519–525

Goldstein, M. E., Leib, S. J. & Cowley, S. J. Generation of Tollmien–Schlichting waves on interactive marginally separated flows, 485–517

Greenspan, H. P. *See* Amberg & Greenspan

Guo, Y. P. Waves induced by sources near the ocean surface, 293–310

Guo, Y. P. On sound generation by weakly nonlinear interactions of surface gravity waves, 311–328

Guo, Y. P. Sound generation in the ocean by breaking surface waves, 329–347

Ha Minh, H. *See* Kourta, Boisson, Chassaing & Ha Minh

Haas, J. F. & Sturtevant, B. Interaction of weak shock waves with cylindrical and spherical gas inhomogeneities, 41–76

Heitor, M. V., Taylor, A. M. K. P. & Whitelaw, J. H. The interaction of turbulence and pressure gradients in a baffle-stabilized premixed flame, 387–413

Hultgren, L. S. *See* Goldstein & Hultgren

Itoh, N. Another route to the three-dimensional developmnt of Tollmien–Schlichting waves with finite amplitude, 1–16

Kit, E., Shemer, L. & Miloh, T. Experimental and theoretical investigation of nonlinear sloshing waves in a rectangular channel, 265–291

Kourta, A., Boisson, H. C., Chassaing, P. & Ha Minh, H. Nonlinear interaction and the transition to turbulence in the wake of a circular cylinder, 141–161

Leib, S. J. *See* Goldstein, Leib & Cowley

Leighton, D. & Acrivos, A. The shear-induced migration of particles in concentrated suspensions, 415–439

INDEX

Acrivos, A. *See* Leighton & Acrivos

Amberg, G. & Greenspan, H. P. Boundary layers in a sectioned centrifuge, 77–97

Ben-Dor, G. A reconsideration of the three-shock theory for a pseudo-steady Mach reflection, 467–484

Benjamin, T. B. Hamiltonian theory for motions of bubbles in an infinite liquid, 349–379

Bernardin, D. *See* Sero-Guillaume & Bernardin

Blake, J. R., Taib, B. B. & Doherty, G. Transient cavities near boundaries. Part 2. Free surface, 197–212

Boisson, H. C. *See* Kourta, Boisson, Chassaing & Ha Minh

Cerra, A. W. *See* Walker, Smith, Cerra & Doligalski

Chassaing, P. *See* Kourta, Boisson, Chassaing & Ha Minh

Colombini, M., Seminara, G. & Tubino, M. Finite-amplitude alternate bars, 213–232

Cowley, S. J. *See* Goldstein, Leib & Cowley

Doherty, G. *See* Blake, Taib & Doherty

Doligalski, T. L. *See* Walker, Smith, Cerra & Doligalski

Goldstein, M. E. & Hultgren, L. S. A note on the generation of Tollmien–Schlichting waves by sudden surface-curvature change, 519–525

Goldstein, M. E., Leib, S. J. & Cowley, S. J. Generation of Tollmien–Schlichting waves on interactive marginally separated flows, 485–517

Greenspan, H. P. *See* Amberg & Greenspan

Guo, Y. P. Waves induced by sources near the ocean surface, 293–310

Guo, Y. P. On sound generation by weakly nonlinear interactions of surface gravity waves, 311–328

Guo, Y. P. Sound generation in the ocean by breaking surface waves, 329–347

Ha Minh, H. *See* Kourta, Boisson, Chassaing & Ha Minh

Haas, J. F. & Sturtevant, B. Interaction of weak shock waves with cylindrical and spherical gas inhomogeneities, 41–76

Heitor, M. V., Taylor, A. M. K. P. & Whitelaw, J. H. The interaction of turbulence and pressure gradients in a baffle-stabilized premixed flame, 387–413

Hultgren, L. S. *See* Goldstein & Hultgren

Itoh, N. Another route to the three-dimensional developmnt of Tollmien–Schlichting waves with finite amplitude, 1–16

Kit, E., Shemer, L. & Miloh, T. Experimental and theoretical investigation of nonlinear sloshing waves in a rectangular channel, 265–291

Kourta, A., Boisson, H. C., Chassaing, P. & Ha Minh, H. Nonlinear interaction and the transition to turbulence in the wake of a circular cylinder, 141–161

Leib, S. J. *See* Goldstein, Leib & Cowley

Leighton, D. & Acrivos, A. The shear-induced migration of particles in concentrated suspensions, 415–439

McIntyre, M. E. & Shepherd, T. G. An exact local conservation theorem for finite-amplitude disturbances to non-parallel shear flows, with remarks on Hamiltonian structure and on Arnol'd's stability theorems, 527–565

Miloh, T. *See* Kit, Shemer & Miloh

Passot, T. & Pouquet, A. Numerical simulation of compressible homogeneous flows in the turbulent regime, 441–466

Pouquet, A. *See* Passot & Pouquet

Purcell, C. J. *See* Rizzi & Purcell

Quon, C. Nonlinear response of a rotating fluid to differential heating from below, 233–263

Rizzi, A. & Purcell, C. J. On the computation of transonic leading-edge vortices using the Euler equations, 163–195

Seminara, G. *See* Colombini, Seminara & Tubino

Sero-Guillaume, O. & Bernardin, D. Note on a Hamiltonian formalism for the flow of a magnetic fluid with a free surface, 381–386

Shemer, L. *See* Kit, Shemer & Miloh

Shepherd, T. G. *See* McIntyre & Shepherd

Smith, C. R. *See* Walker, Smith, Cerra & Doligalski

Sturtevant, B. *See* Haas & Sturtevant

Taib, B. B. *See* Blake, Taib & Doherty

Taylor, A. M. K. P. *See* Heitor, Taylor & Whitelaw

Tubino, M. *See* Colombini, Seminara & Tubino

Walker, J. D. A., Smith, C. R., Cerra, A. W. & Doligalski, T. L. The impact of a vortex ring on a wall, 99–140

Whitelaw, J. H. *See* Heitor, Taylor & Whitelaw

Zufiria, J. A. Non-symmetric gravity waves on water of infinite depth, 17–39

Volume 181 August 1987

CONTENTS

Another route to the three-dimensional development of Tollmien–Schlichting waves with finite amplitude. NOBUTAKE ITOH *page* 1

Non-symmetric gravity waves on water of infinite depth. JUAN A. ZUFIRIA 17

Interaction of weak shock waves with cylindrical and spherical gas inhomogeneities. J. F. HAAS and B. STURTEVANT 41

Boundary layers in a sectioned centrifuge. G. AMBERG and H. P. GREENSPAN 77

The impact of a vortex ring on a wall. J. D. A. WALKER, C. R. SMITH, A. W. CERRA and T. L. DOLIGALSKI 99

Nonlinear interaction and the transition to turbulence in the wake of a circular cylinder. A. KOURTA, H. C. BOISSON, P. CHASSAING and H. HA MINH 141

On the computation of transonic leading-edge vortices using the Euler equations. ARTHUR RIZZI and CHARLES J. PURCELL 163

Transient cavities near boundaries. Part 2. Free surface. J. R. BLAKE, B. B. TAIB and G. DOHERTY 197

Finite-amplitude alternate bars. M. COLOMBINI, G. SEMINARA and M. TUBINO 213

Nonlinear response of a rotating fluid to differential heating from below. CHARLES QUON 233

Experimental and theoretical investigation of nonlinear sloshing waves in a rectangular channel. E. KIT, L. SHEMER and T. MILOH 265

Waves induced by sources near the ocean surface. Y. P. GUO 293

On sound generation by weakly nonlinear interactions of surface gravity waves. Y. P. GUO 311

Sound generation in the ocean by breaking surface waves. Y. P. GUO 329

Hamiltonian theory for motions of bubbles in an infinite liquid. T. BROOKE BENJAMIN 349

Note on a Hamiltonian formalism for the flow of a magnetic fluid with a free surface. O. SERO-GUILLAUME and D. BERNARDIN 381

The interaction of turbulence and pressure gradients in a baffle-stabilized premixed flame. M. V. HEITOR, A. M. K. P. TAYLOR and J. H. WHITELAW 387

The shear-induced migration of particles in concentrated suspensions. DAVID LEIGHTON and ANDREAS ACRIVOS 415

Numerical simulation of compressible homogeneous flows in the turbulent regime. T. PASSOT and A. POUQUET 441

A reconsideration of the three-shock theory for a pseudo-steady Mach reflection. G. BEN-DOR 467

Generation of Tollmien–Schlichting waves on interactive marginally separated flows. M. E. GOLDSTEIN, S. J. LEIB and S. J. COWLEY 485

A note on the generation of Tollmien–Schlichting waves by sudden surface-curvature change. M. E. GOLDSTEIN and LENNART S. HULTGREN 519

An exact local conservation theorem for finite-amplitude disturbances to non-parallel shear flows, with remarks on Hamiltonian structure and on Arnol'd's stability theorems. M. E. MCINTYRE and T. E. SHEPHERD 527

INDEX TO VOLUME 181 566